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The nest of the Grey-headed Flycatcher Mionectes rufiventris

by Glayson Ariel Bencke

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Although nests of most species presently assigned to the Neotropical genus *Mionectes* are already known, that of the Grey-headed Flycatcher *Mionectes rufiventris* of southeastern South America seems to be undescribed. The only reports on its nesting are from Argentina. Peña (1979) gives the measurements of two eggs of *M. rufiventris* apparently from Misiones without mentioning the nest. Castelino & Saibene (1989) report on a Grey-headed occupying a nest of the Sepia-capped Flycatcher *Leptopogon amaurocephalus* from the previous year and a pair carrying nest material to a round, hanging structure of moss with side entrance also in Misiones. These nests held clutches of three white eggs in September and early October.

In February 1990, during field work at Monte Alverne (29°33'S, 52°20'W), Santa Cruz do Sul, Rio Grande do Sul State, southern Brazil, I discovered two nests of the Grey-headed Flycatcher. The first

was found on 16 February (collected on 29 May) and contained three white eggs. It was an elongate, mossstructure 85 cm covered pyriform high and 18 cm wide suspended from a Commelinaceae vine about 0.7 m above a small stream inside primary forest. On 18, 22 and 27 February, incubation continued. I captured the presumed female on the 18th. She was moulting on the head and showed a noticeable olive-green colour on the crown. Measurements taken were (in mm): bill (from base to tip) 11.9; wing chord 67: eggs 19.6×15.5 19.5×15.7 .

The second nest, hanging over another small stream in secondary forest about 1.3 km east of the first site, was empty on 17 February. It was similar to the first, including measurements, and was hanging from a pendent vine 1.8 m above the water. As this nest still appeared to be unoccupied on the 26th, I collected it for studies.

The nests consisted of an elongated. cone-shaped 'roof' and a round nest chamber, completely enclosed and supported by the former. The roof was almost entirely of living moss, with a few slender twigs and dead leaves interspersed. Blackish fibres (probably fungal rhizomorphs) attached the moss to the supporting vine. In nest 1 the fine roots of the vine continued to grow inside the moss, increasing the attachment of the moss to the support. The latter ran inside the roof for almost all its length, emerging from it only behind the nest chamber (Fig. 1).

Inspection of the nest chamber's

structure showed it to be unexpectedly complex. I could identify as many as 7 layers of material in the Figure 1. Nest of Grey-headed Flycatcher Mionectes rufiventris from Monte Alverne, southern Brazil. Outer cover is mostly of fresh



chamber of nest 1, and at least 4 in nest 2. The external layer was mostly of fresh moss (dry moss in nest 2). Just beneath it there was a discontinuous net of entangled small rootlets and rhizomorphs followed by another thin layer of fresh moss (these 2 layers not clearly distinct in nest 2). The next layers (i.e., inner ones) were progressively less extensive and did not cover the chamber's wall for its whole extent. The first of them was composed of a dry, soft straw of uncertain origin. Under the magnifying glass it appeared to be mostly the main veins of decomposed leaves of some kind of grass. This material was present in two distinct layers in nest 1, appearing mingled with rootlets and rhizomorphs in the innermost one. The lining consisted of a thin saucer of blackish fibres covered by a slender layer of soft straw (this absent from nest 2). The upper rim of the chamber projected somewhat above the entrance.

Even when observed under the magnifying glass, nest materials were normally unidentifiable without comparison with other sources. The blackish fibres may have a double origin, part almost certainly being fungal rhizomorphs, the remainder probably central strands of leaves of *Tillandsia* bromeliads.

Slight dissimilarities in nest structure may reflect differences between the builders, in nest material availability, or else distinct local weather conditions. At both sites, moss was abundant over trunks and stones nearby. The blackish fibres were also present (though uncommon) on decomposing wood. The dead, rather than fresh, moss found in the chamber of nest 2 might be due to drier conditions before or after placement in the nest. Especially in nest 2, the limits between some layers may have been obscured by moss growth after nest building.

During observations at nest 1, I did not record any lek activities nearby though a few individuals were feeding on small fruits in mixed flocks at the forest edge. However, in late December 1991, there were lek displays within 50 m of nest 1 of the previous year. On that occasion, a few males (2 or 3 seen) sang persistently until late in the morning from perches 2–4 m and c. 30 m apart (hence, within earshot of one another). They uttered series of weak, nasal notes, daao-daao-daao-daodaodaodaodaodaodaodaodao(-dao), and once one was seen performing short lateral jumps accompanied by wing flicks while he sang. This bird also hovered once.

Mionectes species are rather homogeneous with regard to nesting behaviour. So far as known, they are lekking birds that display at dispersed groups in the forest understory. Their nests are similar in being pendent ball- or pear-shaped structures suspended from hanging vines, aerial roots or slender twigs, usually over a stream in forest interior, and clutch-size is near 3 (Pinto 1953, Skutch 1960, Wetmore 1972, Willis et al. 1978, Snow & Snow 1979, Oniki & Willis 1983, Sick 1985, Skutch 1985). Moss is cited as the main material used in nest construction except for macconnelli (Pinto 1953, Willis et al. 1978, Oniki & Willis 1983), which is regarded as the closest relative of rufiventris (Willis et al. 1978, Willis 1992). However, the site of all but one nest described for macconnelli is a somewhat dry Amazonian forest

(Reserva Ducke, Manaus) where moss is scarce (E. O. Willis pers. comm.), and hence the general absence of moss in these nests probably resulted from local environmental conditions affecting nest material availability rather than divergent nesting behaviour of this species. Even nests of other *Mionectes* species are likely to lack moss coverage under particular conditions (Skutch 1960).

At Monte Alverne, breeding activities of *M. rufiventris* seem to occur late in the season as compared with the records cited above from Misiones (just 2–3° to the north) and with other birds in the Monte Alverne study area (most nests with eggs or young were concentrated from December through February; G. Bencke, in prep.). This is indicated by the facts that in nest 1 eggs were still unhatched as late as 27 February and lek activities at this site were in progress even in late December of the following year. Perhaps breeding is adjusted so as to match the ripening time of some fruits in these deciduous broad-leaved forests, or the species may make more than one nesting attempt per year.

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